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PARTICIPATION OF THE U.S. PUBLIC HEALTH SERVICE FEDERAL SECURITY AGENCY IN THE FLOOD EMERGENCY KANSAS AND MISSOURI, JULY 1951

PUBLIC HEALTH SERVICE, WASHINGTON, D.C.

JULY 1951

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16. Abstracts State and federal officials and agencies participating in the Kansas and Missouri flood emergency plan of operation in July, 1951, are described. Federal assistance was provided in the form of specified professional personnel, vehicles, equipment, and other supplies. Most of the resources of the Regional Office of the Public Health Service, Missouri Drainage Basin Office, and Office of Midwestern CDC Services were dispatched to the two states, and more personnel, equipment, and supplies were brought into the flood area from other PHS field stations and offices to meet additional emergency requests made to the Regional Office. As a result of the support, the flood did not become a health catastrophe. Personnel assignments and costs are detailed.

17. Key Words and Document Analysis. 17a. Descriptors

17b. Identifiers/Open-Ended Terms

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PARTICIPATION OF THE U. S. PUBLIC HEALTH SERVICE, FEDERAL SECURITY AGENCY IN THE FLOOD EMERGENCY - KANSAS AND MISSOURI

JULY, 1951

OVERALL PLAN OF OPERATION

When it became evident that a flood of disaster proportions was impending in the States of Kansas and Missouri, the Surgeon General of the U. S. Public Health Service designated the Regional Medical Director, Public Health Service, o Federal Security Agency Region VII as the Director of all Public Health Service disaster activities in the area.

In accordance with the long-established policy of extending assistance to State Health Departments, the Surgeon General authorized the Regional Medical Director to place the full resources of the Service at the disposal of the States affected. The State Health Departments of Missouri and Kansas were so informed.

As it became obvious that the magnitude of the flood would increase beyond the ability of the Health Departments of Missouri and Kansas to cope with it, these two Health Departments requested assistance from the Public Health Service in the form of specified professional personnel, vehicles, equipment, and other supplies. Most of the resources of the Regional Office, Missouri Drainage Basin Office and Office of Midwestern CDC Services were dispatched promptly to Kansas and Missouri, and more personnel, equipment and supplies were brought into the flood area from other Public Health Service field stations and offices to mee additional emergency requests made to the Regional Office.

The expeditious manner in which supplies were able to reach the State Health Departments was made possible through liaison established by the Regional Office with Central Defense Command, USAF; Olathe Naval Station, USN; Fifth Army Headquarters, Chicago, Illinois; Kansas City Records Center, USA; and other government and commercial sources of supplies and equipment.

The State and local health departments in Kansas and Missouri, augmented by these reserves of personnel, equipment and supplies, moved rapidly, in accordance with predetermined plans, and attacked the health hazards associated with the flood.

As a result of the coordinated, intelligent and vigorous manner with which official health agencies pursued the problem, the flood did not become a health catastrophe and it is considered highly unlikely that major outbreaks of disease will result from the flood.

A summary of major Public Health Service disaster relief activities carried on at the request of, and in cooperation with, the State Health Departments of Missouri and Kansas is presented as follows:

I Detail of personnel assignments, vehicles, major equipment and supplies furnished and brief description of activities.

II Personnel assignments (general).

III Estimate of expenditures by major categories as of COB 7/31/51.

IV Estimate of future work with anticipated costs, through 8/15/51.

I. DETAIL OF PERSONNEL ASSIGNMENTS, VEHICLES, MAJOR EQUIPMENT AND SUPPLIES FURNISHED AND BRIEF DESCRIPTION OF ACTIVITIES.

A. KANSAS CITY, MISSOURI USPHS REGION VII OFFICE

Personnel

Charles F. Blankenship, Medical Director, USPHS Region VII

Lewis H. Hoyle, Deputy Medical Director, USPHS Region VII

R. W. Hart, Sanitary Engineer Director, USPHS Region VII

Glen J. Hopkins, Sr. Sanitary Engineer, Officer in Charge, Missouri Drainage Basin Office, USPHS, Kansas City

L. B. Byington, Medical Director, Office of Midwestern Communicable Disease Center Services, USPHS, Kansas City

J. A. Rowe, Entomologist, Office of Midwestern Communicable Disease Center Services, USPHS, Kansas City, Missouri

W. E. Holy, Sanitary Engineer, temporarily assigned to the Regional Office from the Division of Sanitation, USPHS, Washington, D.C.

John Taylor, Sanitarian, temporarily assigned to the Regional Office from Communicable Disease Center, USPHS, Atlanta, Georgia

Paul D. Haney, Senior Sanitary Engineer, temporarily assigned to Regional Office from Environmental Health Center, USPHS, Cincinnati, Ohio

W. R. McLean, Milk and Food Consultant, USPHS, Region VII

Eugene Reeves, Dining Car Inspector, USPHS, Region VII

Four Stenographers

Robert R. Wilson, Purchasing Officer, Office of Midwestern Communicable Disease Center Services, USPHS, Kansas City

Action

Personnel normally assigned to the Region VII Office, USPHS, the Office of Midwestern Communicable Disease Center Services and the Missouri Drainage Basin Office, USPHS, were dispatched to State and local health departments in Missouri and Kansas. The Regional Office staff was supplemented by personnel from USPHS Offices in Washington, D. C.; Cincinnati, Ohio; and Atlanta, Georgia.

This staff assisted State and local health departments in Kansas and Missouri in obtaining personnel, sanitation and medical supplies, and equipment, and coordinated all Public Health Service activities in the disaster area. Emergency needs of State and local health departments for personnel, equipment, and supplies were anticipated and appropriate action was taken to meet these needs.

The staff conferred with the Housing and Home Finance Agency concerning those provisions of Public Law 875 whereby Federal, State and local health agencies would receive emergency appropriations for the purchase of supplies and equipment needed in the disaster area.

The staff maintained close liaison with the Army, Navy and Air Corps, National Production Authority, Housing and Home Finance Agency, General Services Administration, Food and Drug Administration, and other civil and military authorities and offices whose activities impinged upon the disaster.

In the implementation of the Interstate Quarantine Regulations the staff cooperated with the railroads in the rehabilitation of flooded railroad water supplies, watering points and dining car facilities; investigated the source of food and milk supplies in the disaster area used by interstate carriers, and reviewed carefully all reports of disease that had potential interstate implications.

B. ENTIRE FLOOD AREA - NATIONAL PRODUCTION ADMINISTRATION

Personnel

Glen J. Hopkins, Sr. Sanitary Engineer, USPHS, Missouri Drainage Basin Office, Kansas City, Missouri

Action

Mr. Hopkins was assigned after the flood crest had subsided to the special mission of the National Production Administration for public health, water resources, sewage disposal, sanitation supplies and equipment, and liaison with other Federal agencies activities of that Administration. Prompt action in this respect has assured municipalities throughout the disaster area of prompt receipt of sorely needed supplies and equipment.

C. ENTIRE FLOOD AREA - CORPS OF ENGINEERS

Personnel

Ralph J. Van Derwerker, Sr. Sanitary Engineer, USPHS, Washington, D.C.

Action

Mr. Van Derwerker was dispatched from the Division of Sanitation USPHS, Washington, D. C., to the Regional Office of the U. S. Public Health Service in Kansas City, Missouri. Upon arrival at Kansas City, he was assigned to the Corps of Engineers as liaison officer between the Corps of Engineers, U. S. Public Health Service and State Health Departments of Kansas and Missouri. This assignment facilitated the channeling to the appropriate health agency requests on health problems received by the Corps of Engineers.

D. GREATER KANSAS CITY AREA

Personnel

Lt. Comdr. John M. Hirst, 6th Naval District, MAS, Jacksonville, Fla.

Personnel (Continued)

Lieut. (jg) J. G. McWilliams, 6th Naval Dist., NAS, Jacksonville, Fla.

Chief Petty Officer Lowery, 6th Naval Dist., NAS, Jacksonville, Fla.

8 United States Navy Enlisted Men, 6th Naval Dist., NAS, Jacksonville, Florida

8 Civilian Drivers

8 Civilian Laborers

Vehicles, Equipment and Supplies

Eight power spray units

Eight trucks

Supplies of insecticide, mixing drums, etc.

Action

Arrangements were made, upon the request of the Public Health Service Regional Office, by the Surgeon General, U. S. Public Health Service, Washington, D. C., to secure the services of eight Navy insecticide spray teams from Jacksonville, Florida. These teams and their power spray equipment were dispatched by airplane to the Olathe Naval Air Base. Trucks, drivers, and helpers, contracted for locally, met the Navy crews at the Air Base and then proceeded with the crews and spray equipment to the stricken areas in the Greater Kansas City Area. This task force of eight insecticide spray teams was assigned in the fly and mosquito infested areas in Kansas City, Kansas; Kansas City, Missouri; and North Kansas City, Missouri. They initiated an efficient and effective insect control program in this area during the initial phases of the post disaster work. The Navy spray teams remained on duty until relieved by local health department personnel and equipment.

E. KANSAS CITY, KANSAS - WYANDOTTE COUNTY (KANSAS AND MISSOURI RIVERS)

Personnel

Gerald W. Ferguson, Sr. Sanitary Engineer, USPHS, Region VII, Kansas City, Missouri

Francis E. Longan, Public Health Engineer, USPHS, Region VII, Kansas City, Missouri

Daniel J. Weiner, Sanitary Engineer (R), USPHS, Missouri Drainage Basin Office, Kansas City, Missouri

Francis L. Nelson, Jr. Asst. Sanitary Engineer (R), USPHS, Missouri Drainage Basin Office, Kansas City, Missouri

Roy O. McCaldin, Jr. Asst. Sanitary Engineer, Communicable Disease Center, USPHS, Atlanta, Georgia

Edward W. Schaefer, Public Health Engineer, USPHS, Missouri Drainage Basin Office, Kansas City, Missouri

Eugene Rothman, Public Health Engineer, USPHS, Missouri Drainage Basin Office, Kansas City, Missouri

Paul P. Maier, Sanitary Engineer (R), CDC Activities, Pharr, Texas

Clarence W. Sooter, Entomologist, Office of Midwestern CDC Services, Kansas City, Missouri

Virgil I. Miles, Entomologist, Office of Midwestern CDC Services, Kansas City, Missouri

Preston Holden, Veterinarian, Office of Midwestern CDC Services, Kansas City, Missouri

Robert W. Menges, Veterinarian, Office of Midwestern CDC Services, Kansas City, Missouri

Vernon Fielding, Malaria Control Specialist, CDC Activities, Tyler, Texas

The above personnel were assigned to the Kansas City-Wyandotte County, Kansas Health Department. Mr. Ferguson was placed in charge of all sanitation activities by the Kansas City, Kansas Health Officer, Doctor Vernon M. Winkle.

Vehicles, Equipment and Supplies

Four automobiles, three trucks equipped with spray units, and three mobile power insecticide spray units. Supplies of DDT and chlordane.

Action

Under direction of the local health officer these men assumed responsibility for the entire Kansas City-Wyandotte County, Kansas flood disaster sanitation program, including water supplies, sewage disposal, evacuation centers, flood refuse disposal including dead animals, fly and mosquito control and rat control.

F. KANSAS CITY, KANSAS (Kansas River)

Personnel

Joseph W. Hunt, Rodent Control Specialist, USPHS, Region VII, Kansas City, Missouri

Vehicles, Equipment and Supplies

USPHS automobile

Action

Mr. Hunt organized, directed and coordinated the efforts of the local pest control operators, Red Cross and local health department personnel in the program for the control of rats in the Kansas City, Kansas area. This included applying proper procedures and techniques for controlling the rat populations in the fringe and actual flooded areas; locating and air expressing to Kansas City, Red Squill poison for extermination purposes; organizing crews for the mixing and distribution of poisoned rat baits; and checking results obtained. Evaluations of the rat problem were made in cooperation with the Kansas City, Kansas Health Department and recommendations made for proper control measures to be applied under post-flood conditions.

Rodent control activities were coordinated with other sanitation activities in the devastated areas.

G. TOPEKA, SALINA AND CHANUTE, KANSAS (Kansas, Neosho and Smoky Hill Rivers)

Vehicles, Equipment and Supplies

25,000 pounds of DDT insecticide

Action

At the request of the Kansas State Board of Health, 25,000 pounds of technical grade DDT were released from Public Health Service reserve stocks at Greensboro, Mississippi, and transported by four Central Defense Command (USAF) C-47 cargo planes to Kansas. Two cargoes of DDT were unloaded at Topeka; one at Salina; and one at Chanute. From these cities, DDT was distributed to municipalities in the flood area.

Because of the dispatch with which this operation was consumated, the insecticide was delivered to the distribution centers less than 24 hours after the initial request was received, thus enabling the communities to initiate fly and mosquito control activities before these insects became established in the area.

H. TOPEKA, KANSAS - KANSAS CITY, KANSAS

Vehicles, Equipment and Supplies

16,000 pounds of chlorine disinfectant

Action

At the request of the Kansas State Board of Health, 16,000 pounds of chlorine disinfecting chemical were transported by six Central Defense Command (USAF) C-47 cargo planes from the Mathieson Chemical Company, Niagara Falls, New York to distributing points at Topeka and Kansas City. Within less than 24 hours after requests for assistance in obtaining chlorine were received in the Public

Action (Continued)

Health Service Regional Office, the chlorine was available at the distributing points in Topeka and Kansas City.

I. TOPEKA, KANSAS (Kansas River)

Personnel

H. E. Eagan, Sanitarian, USPHS Field Training Center, Topeka, Kansas

R. E. Kious, Sanitarian, USPHS Field Training Center, Topeka, Kansas

Robert Baum, Sanitarian, USPHS Field Training Center, Topeka, Kansas

Vehicles, Equipment and Supplies

Six ½-ton pick-up trucks

Ten portable de-watering pumps

DDT and oil

Action

These men were assigned immediately to the Topeka-Shawnee County Health Department and have worked with sanitation personnel of that health department on flood problems, such as rehabilitation of flooded wells, fly and mosquito control, food sanitation, flood refuse disposal, and rat control.

J. LAWRENCE, KANSAS (Kansas River)

Personnel

F. M. Middleton, Scientist, Environmental Health Center, USPHS, Cincinnati, Ohio

Action

At the request of the Director, Division of Sanitation, Kansas State Board of Health, Lawrence, Kansas, Mr. Middleton was dispatched

Action (Continued)

from the Environmental Health Center to the Kansas State Board of Health Laboratory at Lawrence, Kansas, where he personally made bacteriological tests on 450 water samples brought to this laboratory from cities and farms throughout the flooded area in Kansas.

Mr. Middleton worked the night shift in the Laboratory and remained in Lawrence until the laboratory work load decreased to a point where it could be handled by the normal staff.

K. IOLA, KANSAS AREA (Neosho River)

Personnel

Joseph W. Hunt, USPHS, Region VII, Kansas City, Missouri, was assigned to the Division of Sanitation, Kansas State Board of Health, to assist in general sanitation and the surveying of municipal and private water supplies.

Vehicles, Equipment and Supplies

USPHS automobile

Action

Visited the communities of Iola, Humboldt, Erie and St. Paul, Kansas. In Iola and Humboldt assisted with the assembly, installation and operation of a 50 gpm and a 35 gpm emergency portable water filtration and chlorination unit respectively. Operation continued during the period that the public water supply was out of service because of the flood. Erie had a considerable amount of flood damage but the municipal water plant continued operations. St. Paul had their wells flooded but the reservoir storage was sufficient to provide drinking water until the water receded and the municipal wells were returned to service.

Action (Continued)

An evaluation of sanitation hazards was completed. Recommendations made to the communities and the reports given to the State Sanitary Engineer of Kansas.

L. CONCORDIA, CLAY CENTER, BLUE RAPIDS, KANSAS AREA (Blue and Republican Rivers)

Personnel

Daniel J. Weiner, Sanitary Engineer (R), USPHS, Missouri Drainage Basin Office, Kansas City, Missouri, was assigned to the Division of Sanitation, Kansas State Board of Health, to assist in general sanitation and the surveying of municipal and private water supplies.

Vehicles, Equipment and Supplies

USPHS automobile

Action

Visited the communities in the Concordia, Clay Center, and Blue Rapids area of Kansas, and distributed chlorine for water supply disinfection. In each community an evaluation of sanitation hazards was made and recommendations for corrections were given to responsible municipal officials. Reports of actions and problems were communicated to the State Sanitary Engineer of Kansas.

M. NEOSHO AND KANSAS RIVER VALLEYS

Personnel

Roy F. Fritz, Entomologist, USPHS, Communicable Disease Center, Atlanta, Georgia, was assigned to the Kansas State Board of Health to assist in fly and mosquito control problems arising from the flood.

Vehicles, Equipment and Supplies

Portable power insecticide spray equipment mounted on ½-ton pick-up truck

Action

Mr. Fritz made entomological surveys along the Neosho and Kansas Rivers. He also reviewed the insecticide formulations, checked spray equipment, made mosquito and fly counts and otherwise assisted the municipalities along these streams with mosquito and fly control problems. Fly and mosquito power spray equipment which Mr. Fritz brought with him was left at Lawrence, Kansas, and is not in use at that city.

N. IOLA, HUMBOLDT, CHANUTE, ERIE, NEOSHO FALLS, KANSAS (Neosho River)

R. A. Gerber, Engineer, USPHS, Communicable Disease Center, Atlanta, Georgia

C. B. Wright, Engineer, USPHS, Communicable Disease Center, Atlanta, Georgia

Vehicles, Equipment and Supplies

Ten de-watering pumps, 90 gpm; one diesel powered generator and GE motor drier; one portable 10 gpm diatomite unit; one trailer mounted Wallace and Tiernan main sterilizer; four collapsible water tanks

Action

This equipment and the above-named personnel were dispatched from Atlanta, Georgia, to Iola, Kansas. The Public Health Service equipment and personnel were made available to the Kansas State Board of Health in connection with the restoration of private and public water supply service in the flooded Neosho River Valley between Neosho Falls, Kansas and Erie, Kansas.

Four of the gasoline-driven de-watering pumps were loaned to the Allen County, Kansas Engineer, Mr. A. H. Young, for use in pumping out rural wells. These pumps are still in use.

Action (Continued)

Later the main sterilizer was loaned to the City Water Department, Lawrence, Kansas, and is still in use there.

O. OTTAWA, KANSAS (Marais Des Cygnes River)

Personnel

I. Bernstein, Sanitary Engineer, Office of Midwestern Communicable Disease Services, Kansas City, Missouri

George C. Cozad, Jr. Asst. Sanitary Engineer, Office of Midwestern Communicable Disease Services, Kansas City, Missouri

Vehicles, Equipment and Supplies

Portable water purification plant, 100 gpm capacity

Action

This equipment was dispatched with Mr. Bernstein to Ottawa, Kansas, where it was placed in service immediately as the sole source of water supply for the community of about 15,000 population. It was used until the flooded Ottawa water plant was returned to service.

P. JOHNSON COUNTY, KANSAS

Roy O. McCaldin, Engineer, Communicable Disease Center, USPHS, Atlanta, Georgia

Vernon Fielding, Engineer, USPHS, Tyler, Texas

Vehicles, Equipment and Supplies

Public Health Service Portable Water Purification Equipment, capacity 100 gpm.

Action

Mr. McCaldin flew from Atlanta, Georgia to Tyler, Texas, where Mr. Fielding was stationed. Two trucks loaded with emergency water

Action (Continued)

purification equipment were driven by them to Northeast Johnson County, Kansas. The unit was set up on Indian Creek and pumped purified water to the distribution system of the Kansas City Suburban Water Company. This company usually obtains its supply from Kansas City, Missouri and Kansas City, Kansas. The supply from these cities was interrupted as a result of the Kansas River flood.

Q. JUNCTION CITY - ABILENE, KANSAS (Republican and Smoky Hill Rivers)

Personnel

Joseph W. Hunt, USPHS Region VII, Kansas City, Missouri, assigned to Kansas State Board of Health, was designated to survey the sanitation hazards in the communities of abilene, Chapman, Detroit, Junction City, Wakefield, Milford, Herington, and Enterprise, and to take appropriate remedial action in minimizing the health hazards created by the flood and to report results to the State Sanitary Engineer.

Vehicles, Equipment and Supplies

USPHS automobile

Action

The above-named communities were visited and DDT insecticide was distributed. Chlorine and Halazone tablets for water disinfection were left in those communities where public or home water supplies were contaminated by the flood.

Evaluations were made of sanitation needs and recommendations given as necessary.

Results of this action were reported to the State Board of Health.

R. KANSAS CITY, MISSOURI

Personnel

H. W. Poston, Sanitary Engineer, USPHS, Southwest Lower Mississippi Drainage Basin Office, Little Rock, Arkansas

Ralph Porges, Sanitary Engineer, USPHS, Missouri Drainage Basin Office, Kansas City, Missouri

Joe K. Neel, Biologist, USPHS, Missouri Drainage Basin Office, Kansas City, Missouri

Clarence A. Monday, Biologist, USPHS, Missouri Drainage Basin Office, Kansas City, Missouri

Action

Mr. Poston, formerly superintendent of water treatment at the Kansas City, Missouri Water Department, reported to the Regional Office of the Public Health Service and was dispatched to the Kansas City, Missouri Health Department. He was then assigned to the Kansas City, Missouri Water Department where he was made a deputy director. He served in this capacity until the end of the water supply emergency in Kansas City, Missouri. He was assisted by USPHS Sanitary Engineer Porges and Biologists Neel and Monday.

S. KANSAS CITY, MISSOURI (Kansas and Missouri Rivers)

Personnel

I. Bernstein, Engineer, USPHS, Office of Midwestern Communicable Disease Services, Kansas City, Missouri

E. L. Todd, Entomologist, USPHS, Atlanta, Georgia

John Ault, Sanitarian, USPHS, Atlanta, Georgia

Four Engineering Aides (1 Arkansas, 1 Louisiana, 2 Georgia)

Vehicles, Equipment and Supplies

Four Public Health Service trucks, ½-ton capacity, with hand spraying equipment. One 1-ton International truck with power sprayer. DDT,

Vehicles, Equipment and Supplies (Continued)

chlordane and oil.

Action

Above-named personnel, equipment and supplies assigned to Kansas City, Missouri Health Department for the purpose of evaluating the mosquito and fly problems resulting from the flood and planning and supervising the application of adequate insect control measures.

Operations were confined principally to the Central Industrial Area, the annexed portion of Kansas City, and the Big Blue River Valley, including the Northeast Industrial Area.

T. KANSAS CITY, MISSOURI (Kansas and Missouri Rivers)

Personnel

Joseph W. Hunt, Rodent Control Specialist, USPHS, Region VII, Kansas City, Missouri

Vehicles, Equipment and Supplies

USPHS automobile

Action

Organized, directed and coordinated the efforts of the local pest control operators, Red Cross and local health department personnel in the program for the control of rats in the Kansas City and North Kansas City, Missouri area. This included applying proper procedures and techniques for controlling the rat populations in the fringe and actual flooded areas; locating and air expressing to Kansas City, Red Squill poison for extermination purposes; organizing crews for the mixing and distribution of poisoned rat baits; and

Action (Continued)

checking results obtained. Evaluations of the rat problem were made in cooperation with the Kansas City and North Kansas City, Missouri Health Departments and recommendations made for proper control measures to be applied under post-flood conditions.

Rodent control activities were coordinated with other sanitation activities in the devastated areas.

U. INDEPENDENCE, MISSOURI (Missouri River)

Personnel

Gordon Smith, Entomologist, USPHS, Office of Midwestern Communicable Disease Services, Kansas City, Missouri

E. P. Savage, Entomologist, USPHS, Charleston, West Virginia

Louis E. Barr, Sanitarian, USPHS, Clarinda, Iowa

L. C. Smith, Airplane Pilot, USPHS, Little Rock, Arkansas

Vehicles, Equipment and Supplies

Airplane equipped for mosquito and fly control spraying. Chlordane and DDT.

Action

Under direction of the Jackson County Health Officer, these men assumed responsibility for the planning and operation of the emergency mosquito and fly control program in the flooded area of the country.

The Public Health Service plane was used for air spraying and dusting of areas inaccessible to ground equipment.

V. JEFFERSON CITY, MISSOURI (Missouri River)

Personnel

Joseph Coffey, Sanitary Engineer, USPHS, Atlanta, Georgia

Charles Gerhart, Entomologist, USPHS, Atlanta, Georgia

Vehicles, Equipment and Supplies

USPHS automobile

Action

These men were assigned to the Bureau of Public Health Engineering, Missouri Division of Health, to evaluate the extent of the fly and mosquito problem resulting from the Missouri River flood and to plan and supervise appropriate control measures on a State-wide basis.

W. ST. LOUIS AND ST. LOUIS COUNTY, MISSOURI (Missouri and Mississippi River

Personnel

Lewis E. Hoyle, Medical Director, USPHS, Region VII, Kansas City Missouri

Action

At the request of Doctor Buford G. Hamilton, Director, Missouri' Division of Health, and concurrence of Doctor J. Earl Smith, Health Commissioner, St. Louis City Health Department, Doctor Hoyle was detailed to St. Louis area, in advance of the flood crest, to assist local health officers in planning for impact of flood as it might affect the health of people of the area, and to act as representative of the Public Health Service in procurement of supplies, personnel and equipment, as needed.

Doctor Hoyle remained in St. Louis for about one week, until the flood crest had passed and all rehabilitation and insect control work was firmly established.

X. ST. LOUIS AND ST. LOUIS COUNTY, MISSOURI (Missouri and Mississippi Rivers

Personnel

George Gentry, Engineer, USPHS, Atlanta, Georgia

E. C. Munn, Engineering Aide, USPHS, Montgomery, Alabama

Malcolm Ferguson, Entomologist, USPHS, Atlanta, Georgia

Vehicles, Equipment and Supplies

One ½-ton pick-up truck equipped with hand sprayers, chlordane, etc.

Action

Under the direction of the County and City Health Officers, these personnel surveyed the extent of the mosquito and fly problem resulting from the flood and developed and supervised the initiation of control operations.

Y. WASHINGTON, MISSOURI - DISTRICT ENGINEER'S OFFICE, MISSOURI DIVISION OF HEALTH

Personnel

Harold Wolf, Engineering Aide, USPHS, Little Rock, Arkansas

Vehicles, Equipment and Supplies

One ½-ton pick-up truck with hand sprayers, chlordane, etc.

Action

Under direction of the District Engineer, Missouri Division of Health, Mr. Wolf was detailed to study the extent of the fly and mosquito problems in the flooded municipalities and to extend assistance to health departments and local governmental officials on initiating control measures.

Z. SEDALIA, MISSOURI - DISTRICT ENGINEER'S OFFICE, MISSOURI DIVISION OF HEALTH

Personnel

D. E. Howells, Engineering Aide, USPHS, Little Rock, Arkansas

Vehicles, Equipment and Supplies

One ½-ton pick-up truck with hand sprayers, chlordane, etc.

Action

Under direction of the District Engineer, Missouri Division of Health, Mr. Howells was detailed to study the extent of the fly and mosquito problems in the flooded municipalities and to extend assistance to health departments and local governmental officials on initiating control measures.

Z1. CAMERON, MISSOURI - DISTRICT ENGINEER'S OFFICE, MISSOURI DIVISION OF HEALTH

Personnel

B. Noonan, Engineering Aide, USPHS, Little Rock, Arkansas

Vehicles, Equipment and Supplies

One ½-ton pick-up truck with hand sprayers, chlordane, etc.

Action

Under direction of the District Engineer, Missouri Division of Health, Mr. Noonan was detailed to study the extent of the fly and mosquito problems in the flooded municipalities and to extend assistance to health departments and local governmental officials on initiating control measures.

II. PERSONNEL ASSIGNMENTS (GENERAL)

	PERSONNEL ASSIGNED TO			
	STATE OF MISSOURI	STATE OF KANSAS	USPHS REGION VII OFFICE, K.C., MO.	TOTAL
Physicians	1	0	2	3
Sanitary Engineers	5	10	5	20
Sanitarians	12	7	5	24
Entomologists	3	2	1	6
Scientists	2	1	1	4
Veterinarians	0	2	0	2
Clerical & Stenos.	0	0	6	6
Airplane Pilot	0	0	1	1
Truck Drivers	0	0	2	2
TOTAL	23	22	23	68

III. ESTIMATE OF EXPENDITURES BY MAJOR CATEGORIES AS OF COB JULY 31, 1951

Personnel (travel, subsistence and overtime)	$ 8,500
Vehicles (operation and maintenance)	9,000
Supplies (insecticide, chlorine, etc.)	56,000
Equipment (sprayers, pumps, etc.)	17,500
Communications (telephone, telegraph)	4,000
	$ 95,000